

# Hoshizaki America, Inc.

Modular Flaker

Models  
F-450MAH(-C)



“A Superior Degree  
of Reliability”

[www.hoshizaki.com](http://www.hoshizaki.com)

## INSTRUCTION MANUAL



Issued: 1-28-2001  
Revised: 5-20-2011

**IMPORTANT**

Only qualified service technicians should install, service, and maintain the icemaker. No installation, service, or maintenance should be undertaken until the technician has thoroughly read this Instruction Manual. Likewise, the owner/manager should not proceed to operate the icemaker until the installer has instructed them on its proper operation. Failure to install, operate, and maintain the equipment in accordance with this manual may adversely affect safety, performance, component life, and warranty coverage.

Hoshizaki provides this manual primarily to assist qualified service technicians in the installation, maintenance, and service of the icemaker.

Should the reader have any questions or concerns which have not been satisfactorily addressed, please call, write, or send an e-mail message to the Hoshizaki Technical Support Department for assistance.

HOSHIZAKI AMERICA, INC.  
618 Highway 74 South  
Peachtree City, GA 30269

Attn: Hoshizaki Technical Support Department

Phone: 1-800-233-1940 Technical Support  
(770) 487-2331

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(770) 487-3360

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Web Site: www.hoshizaki.com

**NOTE:** To expedite assistance, all correspondence/communication **MUST** include the following information:

- Model Number \_\_\_\_\_
- Serial Number \_\_\_\_\_
- Complete and detailed explanation of the problem.

**IMPORTANT**

This manual should be read carefully before the icemaker is installed and operated. Only qualified service technicians should install, service, and maintain the icemaker. Read the warnings contained in this booklet carefully as they give important information regarding safety. Please retain this booklet for any further reference that may be necessary.

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## Important Safety Information

Throughout this manual, notices appear to bring your attention to situations which could result in death, serious injury, or damage to the unit.

**⚠ WARNING** Indicates a hazardous situation which could result in death or serious injury.

**CAUTION** Indicates a situation which could result in damage to the unit.

**IMPORTANT** Indicates important information about the use and care of the unit.

### **⚠ WARNING**

This unit should be destined only to the use for which it has been expressly conceived. Any other use should be considered improper and therefore dangerous. The manufacturer cannot be held responsible for eventual damage caused by improper, incorrect, and unreasonable use.

**To reduce the risk of death, electric shock, serious injury, or fire, follow basic precautions including the following:**

- Electrical connection must be hard-wired and must meet national, state, and local electrical code requirements. Failure to meet these code requirements could result in death, electric shock, serious injury, fire, or severe damage to equipment.
- This unit requires an independent power supply. See the nameplate for proper voltage and breaker/fuse size. Failure to use a proper breaker or fuse can result in a tripped breaker, blown fuse, or damage to existing wiring. This could lead to heat generation or fire.
- **THIS UNIT MUST BE GROUNDED.** Failure to properly ground this unit could result in death or serious injury.
- This unit should be disassembled or repaired only by qualified service personnel to reduce the risk of electric shock, injury, or fire.
- Do not make any alterations to the unit. Alterations could result in electric shock, injury, fire, or damage to the unit.

# I. Specifications


## A. Nameplate Rating


### 1. F-450MAH(-C) (air-cooled)


<b>HOSHIZAKI ICE MAKER</b>	
MODEL NUMBER	F-450MAH
SERIAL NUMBER	
AC SUPPLY VOLTAGE	115-120/60/1
COMPRESSOR	120V 7.5RLA 54.5 LRA
GEAR MOTOR	115V 2.4FLA 1/4HP
FAN MOTOR	120V 0.85FLA 1/15HP
OTHER	120V 0.03A
MAXIMUM FUSE SIZE	20 AMPS
MAX. HACR BREAKER (USA ONLY)	20 AMPS
MAX. CIRC. BREAKER (CANADA ONLY)	20 AMPS
MINIMUM CIRCUIT AMPACITY	20 AMPS
DESIGN PRESSURE	HI-427PSI LO-230PSI
REFRIGERANT	404A 1 lb

**MOTOR-COMPRESSOR THERMALLY PROTECTED,  
NOT INTENDED FOR OUTDOOR USE!**

**Hoshizaki America, Inc.**  
Peachtree City, GA  
[www.hoshizaki.com](http://www.hoshizaki.com)

 **UL** US LISTED  
ICE MAKER WITHOUT  
STORAGE MEANS  
946Z

 **NSF**  
COMPONENT

 VERIFIED  
Energy Performance  
Rendement  
Energetique  
VERIFIÉ  
186090

Note: Only the "MODEL NUMBER" is replaced for F-450MAH-C.

See the nameplate for electrical and refrigeration specifications. This nameplate is located on the rear panel.

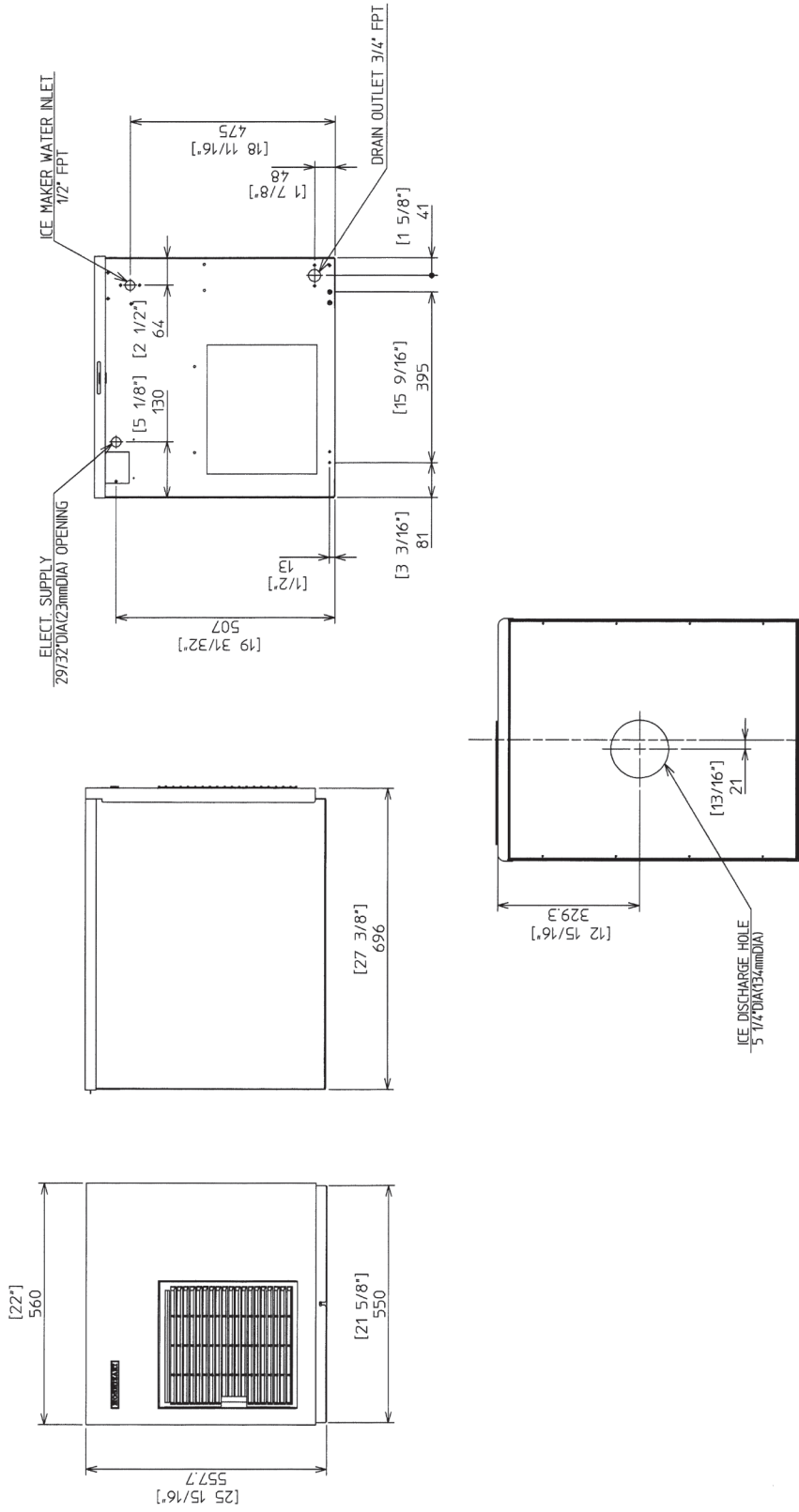
Since this nameplate is located on the rear panel of the icemaker, it cannot be read when the back of the icemaker is against a wall or against another piece of kitchen equipment. Therefore, the necessary electrical and refrigeration information is also on the rating label, which can be easily seen by removing only the front panel of the icemaker.

We reserve the right to make changes in specifications and design without prior notice.

# B. Dimensions/Connections

## 1. F-450MAH(-C) (air-cooled)

Unit: [in.] mm



## II. Installation and Operating Instructions

### ⚠ WARNING

1. This icemaker must be installed in accordance with all applicable national, state, and local regulations.
2. **CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after installation. Make sure that none have fallen into the storage bin.

### A. Checks Before Installation

- Visually inspect the exterior of the shipping container and immediately report any damage to the carrier. Upon opening the container, any concealed damage should also be immediately reported to the carrier.
- Remove the shipping carton, tape, and packing material. If any are left in the icemaker, it will not work properly.
- Remove the front panel to prevent damage when installing the icemaker. See "II.B. How to Remove Panels."
- Remove the package containing the accessories.
- Remove the protective plastic film from the panels. If the icemaker is exposed to the sun or to heat, remove the film after the icemaker cools.
- Check that the refrigerant lines do not rub or touch lines or other surfaces, and that the fan blade turns freely.
- Check that the compressor is snug on all mounting pads.
- See the nameplate on the rear panel, and check that your voltage supplied corresponds with the voltage specified on the nameplate.

### B. How to Remove Panels

See Fig. 1

- Front Panel: Remove the screw. Lift up and towards you.
- Top Panel: Lift up at the front slightly, push rearward, and lift off.
- Side Panels: Remove the screw. Slide forward slightly and lift off.

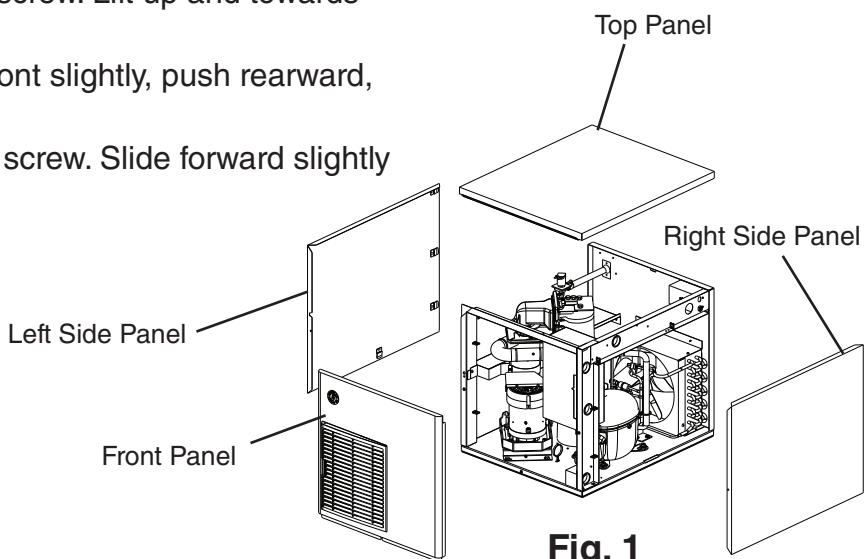


Fig. 1

## C. Location

### CAUTION

1. This icemaker is not intended for outdoor use. Normal operating ambient temperature should be within 45°F to 100°F (7°C to 38°C); Normal operating water temperature should be within 45°F to 90°F (7°C to 32°C). Operation of the icemaker, for extended periods, outside of these normal temperature ranges may affect icemaker performance.
2. This icemaker will not work at sub-freezing temperatures. To prevent damage to the water supply line, drain the icemaker if the air temperature is going to go below 32°F (0°C). See "III.C. Preparing the Icemaker for Long Storage."

For best operating results:

- The icemaker should not be located next to ovens, grills, or other high heat producing equipment.
- The location should provide a firm and level foundation for the equipment.
- Allow 6" (15 cm) clearance at rear and sides for proper air circulation and ease of maintenance and/or service should they be required. Allow 24" (61 cm) clearance at top to allow for removal of the auger.

## D. Setup

- 1) Unpack the storage bin, and attach the 4 adjustable legs provided (bin accessory) to the bottom of the storage bin.
- 2) Position the storage bin in the selected permanent location.
- 3) Place the icemaker on top of the storage bin.
- 4) Secure the icemaker to the storage bin using the 2 mounting brackets and the bolts provided. See Fig. 2.
- 5) Level the icemaker and storage bin in both the left-to-right and front-to-rear directions. Adjust the storage bin legs to make the icemaker level.
- 6) Replace the panels in their correct positions.

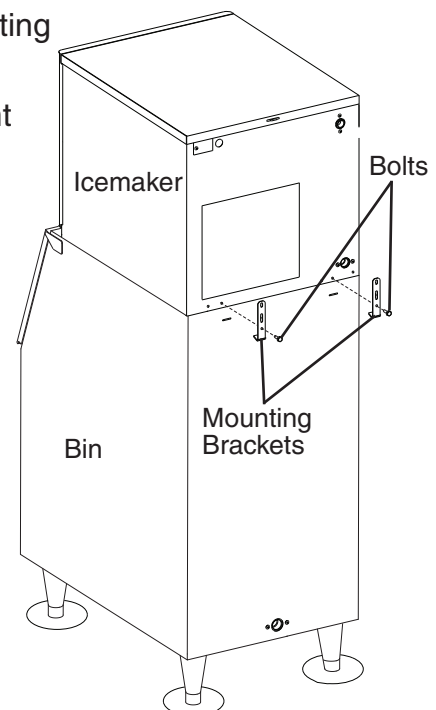


Fig. 2



## E. Electrical Connection

### ⚠ WARNING

1. Electrical connection must be hard-wired and must meet national, state, and local electrical code requirements. Failure to meet these code requirements could result in death, electric shock, serious injury, fire, or severe damage to equipment.
2. This icemaker requires an independent power supply. See the nameplate for proper voltage and breaker/fuse size. Failure to use a proper breaker or fuse can result in a tripped breaker, blown fuse, or damage to existing wiring. This could lead to heat generation or fire.
3. **THIS UNIT MUST BE GROUNDED.** Failure to properly ground this unit could result in death or serious injury.
4. Electrical connection must be made in accordance with the instructions on the "WARNING" tag, provided with the pig tail leads in the junction box. See Fig. 3.

- Usually an electrical permit and services of a licensed electrician are required.
- The maximum allowable voltage variation is  $\pm 10$  percent of the nameplate rating.
- The white lead must be connected to the neutral conductor of the power source.  
**CAUTION! Miswiring may result in severe damage to the icemaker.** See Fig. 3.
- The opening for the power supply connection is  $7/8$ " DIA to fit a  $1/2$ " trade size conduit.

### ⚠ WARNING

#### ELECTRICAL CONNECTION

#### THIS UNIT MUST BE GROUNDED

Failure to properly ground or wire this unit could result in death, serious injury, or severe damage to the icemaker. The white lead must be connected to the neutral conductor of the power source. See diagram below.

115-120/60/1

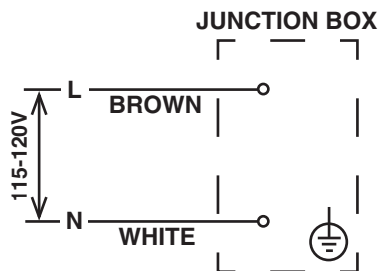


Fig. 3

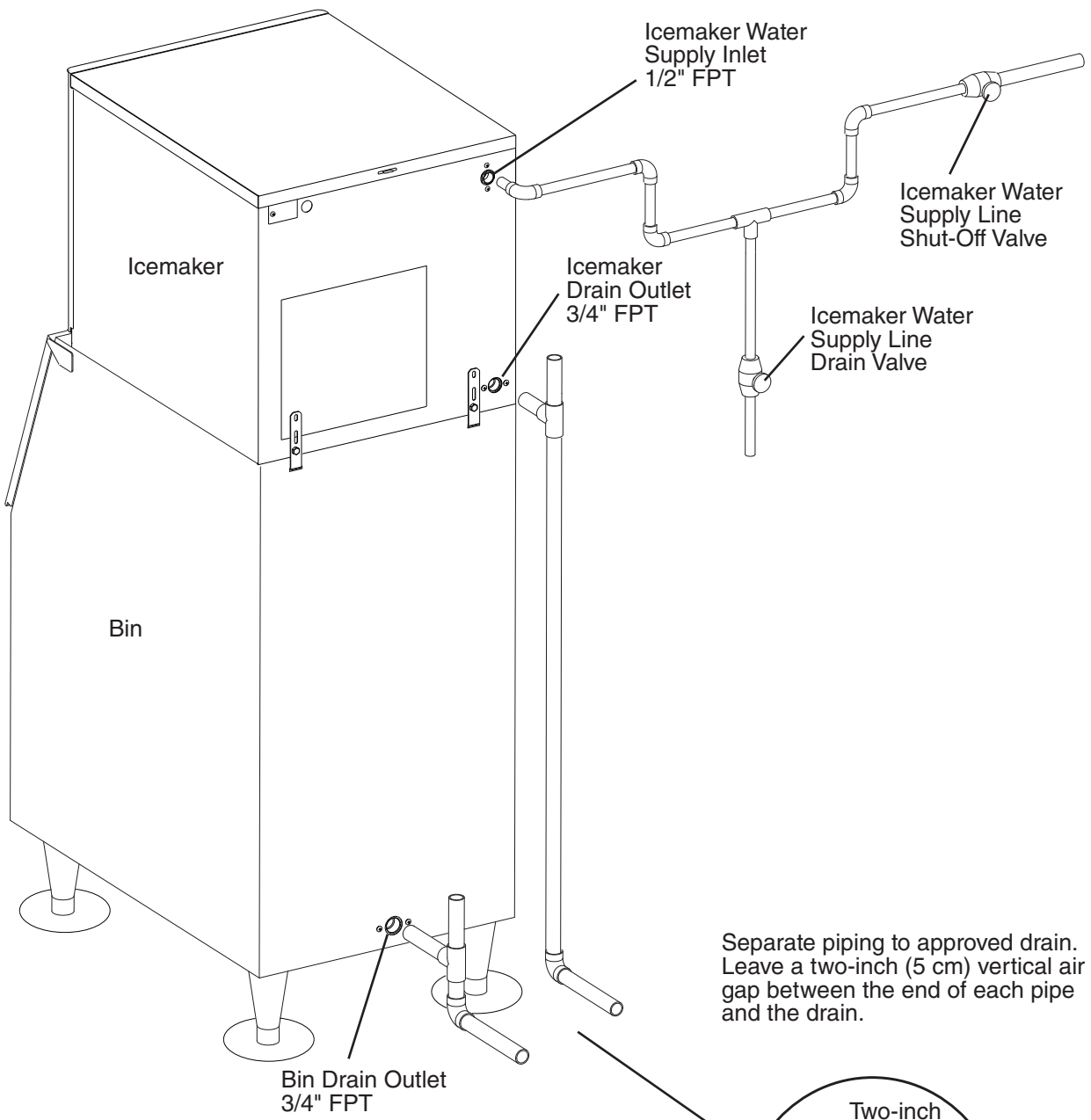
## F. Water Supply and Drain Connections

See Fig. 4

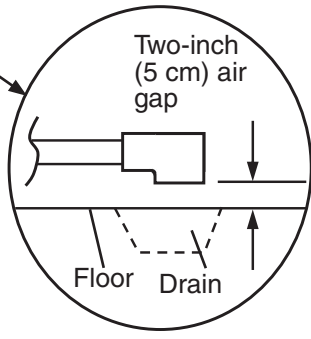
### WARNING

1. Water supply and drain connections must be installed in accordance with applicable national, state, and local regulations.
2. Normal operating water temperature should be within 45°F to 90°F (7°C to 32°C). Operation of the icemaker, for extended periods, outside of this normal temperature range may affect icemaker performance.
3. To prevent damage to equipment, do not operate the icemaker when the water supply is off, or if the pressure is below 10 PSIG. Do not run the icemaker until the proper water pressure is reached.

- A plumbing permit and services of a licensed plumber may be required in some areas.
- External filters, strainers, or softeners may be required depending on water quality. Contact your local Hoshizaki distributor for recommendations.
- Water supply pressure should be a minimum of 10 PSIG and a maximum of 113 PSIG. If the pressure exceeds 113 PSIG, the use of a pressure reducing valve is required.
- Icemaker water supply inlet is 1/2" female pipe thread (FPT). A minimum of 3/8" OD copper tubing is recommended for the icemaker water supply line.
- An icemaker water supply line shut-off valve and drain valve should be installed.
- Storage bin and icemaker drain outlets are 3/4" FPT. A minimum of 3/4" OD hard pipe is recommended for the storage bin and icemaker drain lines.
- The storage bin drain line and icemaker drain line must be run separately.
- Drain lines must have 1/4" fall per foot (2 cm per 1 m) on horizontal runs to get a good flow. A vented tee connection is also required for proper flow.
- Drain lines should not be piped directly to the sewer system. An air gap of a minimum of 2 vertical inches (5 cm) should be between the end of the drain pipes from the icemaker and storage bin and the floor drain.



Separate piping to approved drain. Leave a two-inch (5 cm) vertical air gap between the end of each pipe and the drain.



**Fig. 4**

**F-450MAH**

## G. Final Checklist

### **WARNING**

**CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after installation. Make sure that none have fallen into the storage bin.

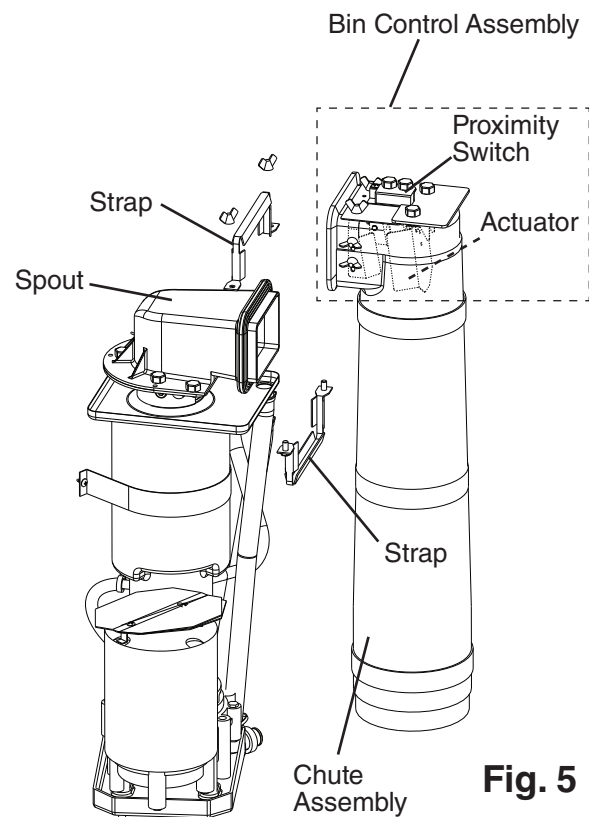
- 1) Is the icemaker level?
- 2) Is the icemaker in a site where the ambient temperature is within 45°F to 100°F (7°C to 38°C) and the water temperature within 45°F to 90°F (7°C to 32°C) all year around?
- 3) Is there at least 6" (15 cm) clearance at rear and sides and 24" (61 cm) at top for proper air circulation and ease of maintenance and service?
- 4) Have the shipping carton, tape, and packing material been removed from the icemaker?
- 5) Are all components, fasteners, and thumbscrews securely in place?
- 6) Have all electrical and water connections been made? Do electrical and water connections meet all national, state, and local code and regulation requirements?
- 7) Has the power supply voltage been checked or tested against the nameplate rating?  
Has a proper ground been installed to the icemaker?
- 8) Are the water supply line shut-off valve(s) and drain valve(s) installed? Has the water supply pressure been checked to ensure a minimum of 10 PSIG and a maximum of 113 PSIG?  
Note: The icemaker may stop running when the water supply is off, or if the pressure is below 10 PSIG. When the proper water pressure is reached, the icemaker automatically starts running again.
- 9) Are the compressor hold-down bolts snug? Have the refrigerant lines been checked to make sure they do not rub or touch other lines or surfaces? Has the fan blade been checked to make sure it turns freely?
- 10) Has the end user been given the instruction manual, and instructed on how to operate the icemaker and the importance of the recommended periodic maintenance?
- 11) Has the end user been given the name and telephone number of an authorized service agent?
- 12) Has the warranty card been filled out and forwarded to the factory for warranty registration?

## H. Startup

### ⚠ WARNING

1. All parts are factory-adjusted. Improper adjustments may adversely affect safety, performance, component life, and warranty coverage.
2. If the icemaker is turned off, wait for at least 3 minutes before restarting the icemaker to prevent damage to the compressor.
3. At startup, confirm that all internal and external connections are free of leaks.

- 1) Open the water supply line shut-off valve.
- 2) Remove the front panel. Move the control switch on the control box to the "ICE" position, then move the power switch to the "ON" position. Replace the front panel in its correct position, then turn on the power supply to start the automatic icemaking process.
- 3) Once the icemaker starts to produce ice, allow it to run for another 30 minutes.
- 4) Turn off the power supply, then remove the front panel.
- 5) Move the control switch to the "DRAIN" position, then replace the front panel in its correct position. Turn on the power supply and allow the water system to drain for 5 minutes.
- 6) Confirm bin control operation:
  - a) Turn off the power supply, then remove the front and top panels.
  - b) Move the power switch to the "OFF" position.
  - c) Remove the strap connecting the spout to the chute assembly. See Fig. 5. Pull up the chute assembly slightly so that you can access the actuator located in the top of the chute.
  - d) Move the control switch to the "ICE" position, then move the power switch to the "ON" position.
  - e) Turn on the power supply to start the automatic icemaking process. **WARNING! Keep hands, hair, and loose clothing clear of the cutter and auger on top of the evaporator assembly.** Allow the icemaker to run until the compressor starts (approximately 60 seconds).
  - f) Press and hold the actuator paddle located in the top of the chute. The icemaker should shut down within 6 seconds.



**Fig. 5**

- g) Move the power switch to the "OFF" position, then turn off the power supply.
  - h) Replace the chute assembly and strap in their correct positions.
  - i) Move the power switch to the "ON" position.
  - j) Replace the top and front panels in their correct positions.
- 7) Pour warm water into the storage bin and melt any remaining ice. Clean the storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning. **WARNING! CHOKING HAZARD: Ensure all components, fasteners, and thumbscrews are securely in place. Make sure that none have fallen into the storage bin.**
- 8) Turn on the power supply to start the automatic icemaking process.

### III. Cleaning and Maintenance

#### ⚠ WARNING

**CHOKING HAZARD:** Ensure all components, fasteners, and thumbscrews are securely in place after any cleaning or maintenance is done to the unit. Make sure that none have fallen into the storage bin.

#### A. Cleaning and Sanitizing Instructions

Hoshizaki recommends cleaning and sanitizing this unit at least twice a year. More frequent cleaning and sanitizing, however, may be required in some existing water conditions.

#### ⚠ WARNING

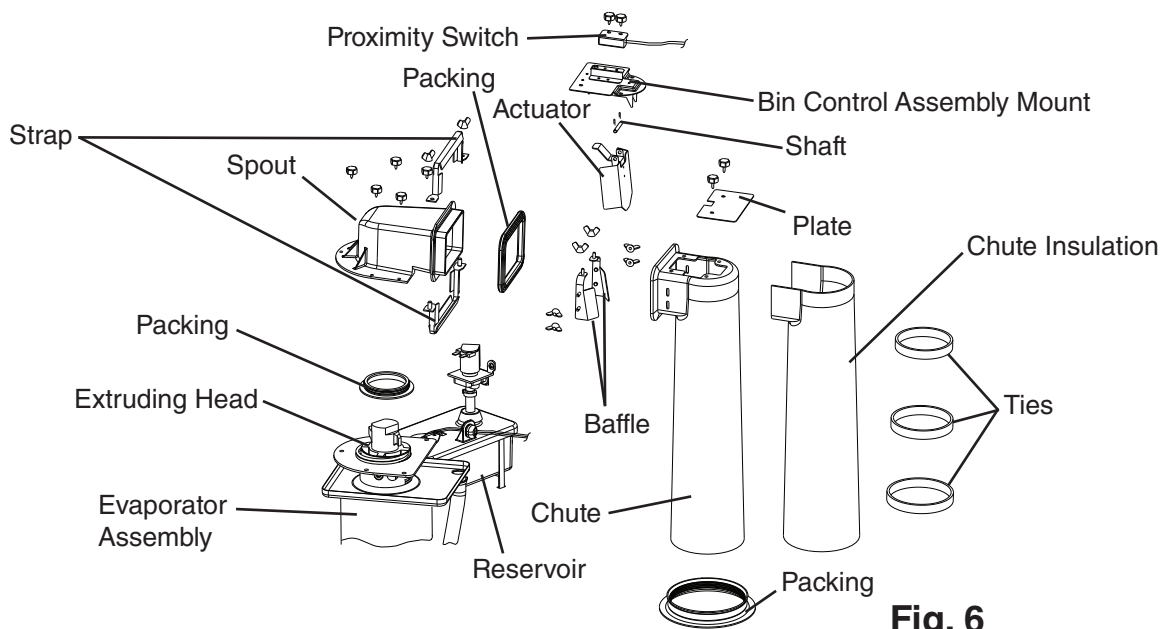
1. To prevent injury to individuals and damage to the icemaker, do not use ammonia type cleaners.
2. Carefully follow any instructions provided with the bottles of cleaning and sanitizing solution.
3. Always wear liquid-proof gloves and goggles to prevent the cleaning and sanitizing solutions from coming into contact with skin or eyes.
4. After cleaning and sanitizing, do not use ice made from the cleaning and sanitizing solutions. Be careful not to leave any solution on the parts or in the storage bin.

#### 1. Cleaning Solution

#### IMPORTANT

For safety and maximum effectiveness, use the solution immediately after dilution.

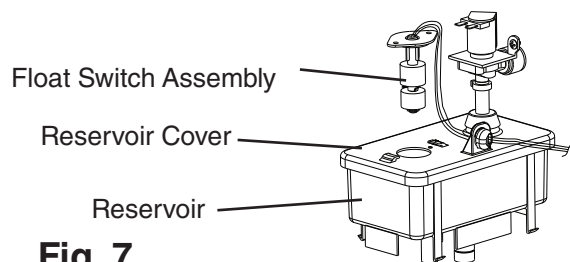
Dilute 4.8 fl. oz. (142 ml) of Hoshizaki "Scale Away" with 0.8 gal. (3 l) of warm water. This is a minimum amount. Make more solution if necessary.



**Fig. 6**

## 2. Cleaning Procedure

- 1) Turn off the power supply, then remove the front panel. Make sure the power switch is in the "ON" position, then move the control switch to the "DRAIN" position. Replace the front panel in its correct position.
- 2) Close the icemaker water supply line shut-off valve.
- 3) Turn on the power supply and allow the water system to drain for 5 minutes.
- 4) Turn off the power supply, then remove the front and top panels. Move the power switch to the "OFF" position.
- 5) Remove all of the ice from the storage bin.
- 6) Remove the strap connecting the spout to the chute assembly, then remove the spout. See Fig. 6.
- 7) Pour the cleaning solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan.  
Note: If there is excess scale on the extruding head, fill the evaporator assembly and reservoir as described above, then use a clamp on the reservoir hose between the reservoir and evaporator assembly to block flow. Pour additional cleaning solution over the extruding head until the evaporator assembly is completely full.
- 8) Replace the spout and strap in their correct positions.
- 9) Allow the icemaker to sit for 10 minutes before operation. If you placed a clamp on the reservoir hose in step 7, remove it before operation.
- 10) In bad or severe water conditions, clean the float switch assembly as described below. See Fig. 7. Otherwise, continue to step 11.
  - a. Remove the float switch assembly from the reservoir cover.
  - b. Wipe down the float switch assembly with the cleaning solution.
  - c. Rinse the float switch assembly thoroughly with clean water.
  - d. Replace the float switch assembly in its correct position.
- 11) Move the control switch to the "ICE" position, then move the power switch to the "ON" position. Replace the panels in their correct positions. Turn on the power supply and make ice using the solution until the icemaker stops making ice.
- 12) Turn off the power supply, then remove the front panel. Move the control switch to the "DRAIN" position, then replace the front panel in its correct position.
- 13) Turn on the power supply and allow the water system to drain for 5 minutes.
- 14) Turn off the power supply, then remove the front panel. Move the control switch to the "ICE" position, then replace the front panel in its correct position.
- 15) Open the icemaker water supply line shut-off valve, then turn on the power supply to supply water to the reservoir.



**Fig. 7**



- 16) After the gear motor starts, turn off the power supply. Remove the front panel, then move the control switch to the "DRAIN" position. Replace the front panel in its correct position.
- 17) Turn on the power supply and allow the water system to drain for 5 minutes.  
Note: If you do not sanitize the unit, go to step 14 in "III.A.5. Sanitizing Procedure - Final."
- 18) Turn off the power supply, then close the icemaker water supply line shut-off valve.

### 3. Sanitizing Solution

#### **IMPORTANT**

For safety and maximum effectiveness, use the solution immediately after dilution.

Dilute 2.5 fl. oz. (74 ml or 5 tbs) of a 5.25% sodium hypochlorite solution (chlorine bleach) with 5 gal. (19 l) of warm water.

### 4. Sanitizing Procedure - Initial

- 1) Make sure the power supply is off and the icemaker water supply line shut-off valve is closed. Remove the front and top panels, then move the power switch to the "OFF" position.
- 2) Remove the strap connecting the spout to the chute assembly, then remove the spout. Remove the packing at the top of the cylinder and also remove the packing between the spout and the chute.
- 3) Pour the sanitizing solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan.
- 4) Remove the proximity switch from the chute assembly, then remove the chute assembly from the icemaker.
- 5) Remove the packing at the bottom of the chute. Remove the 3 ties and the chute insulation.
- 6) Remove the 2 baffles.
- 7) Remove the plate from the top of the chute, then remove the bin control assembly by sliding it slightly towards the chute opening and lifting it off.
- 8) Disassemble the bin control assembly by removing the 2 snap pins, shaft, and actuator.
- 9) Soak the spout, packings, chute, baffles, plate, and bin control assembly in the sanitizing solution for 10 minutes then wipe them down.
- 10) Rinse the parts thoroughly with clean water.

#### **CAUTION**

If the solution is left on these parts, they will rust.

- 11) Replace all parts in their correct positions.

#### **IMPORTANT**

When installing the baffles, make sure that the bent surface (the one without the studs) faces the actuator so that the bent surface can guide the ice to the center of the actuator.

- 12) Move the control switch to the "ICE" position, then move the power switch to the "ON" position. Replace the panels in their correct positions, then turn on the power supply. Make ice using the solution until the icemaker stops making ice.
- 13) Turn off the power supply, then remove the front panel. Move the control switch to the "DRAIN" position, then replace the front panel in its correct position.
- 14) Turn on the power supply and allow the water system to drain for 5 minutes.
- 15) Turn off the power supply.

## **5. Sanitizing Procedure - Final**

- 1) Mix a new batch of the sanitizing solution.
- 2) Make sure the power supply is off and the icemaker water supply line shut-off valve is closed. Remove the front and top panels, then move the power switch to the "OFF" position.
- 3) Remove the strap connecting the spout to the chute assembly, then remove the spout.
- 4) Pour the sanitizing solution over the extruding head until the evaporator assembly and the reservoir are full and the solution starts to overflow into the drain pan.
- 5) Replace the spout and strap in their correct positions.
- 6) Allow the icemaker to sit for 10 minutes before operation.
- 7) Move the control switch to the "ICE" position, then move the power switch to the "ON" position. Replace the panels in their correct positions, then turn on the power supply. Make ice using the solution until the icemaker stops making ice.
- 8) Turn off the power supply, then remove the front panel. Move the control switch to the "DRAIN" position, then replace the front panel in its correct position.
- 9) Turn on the power supply and allow the water system to drain for 5 minutes.
- 10) Turn off the power supply, then remove the front panel. Move the control switch to the "ICE" position, then replace the front panel in its correct position.
- 11) Open the icemaker water supply line shut-off valve, then turn on the power supply to supply water to the reservoir.
- 12) After the gear motor starts, turn off the power supply. Remove the front panel, then move the control switch to the "DRAIN" position. Replace the front panel in its correct position.
- 13) Turn on the power supply and allow the water system to drain for 5 minutes.
- 14) Turn off the power supply, then remove the front panel. Move the control switch to the "ICE" position, then replace the front panel in its correct position.
- 15) Turn on the power supply to start the automatic icemaking process. Allow the icemaker to run for 30 minutes, then turn off the power supply.
- 16) Pour warm water into the storage bin and melt any remaining ice. Clean the storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.
- 17) Turn on the power supply to start the automatic icemaking process.

## B. Maintenance

This icemaker must be maintained individually, referring to the instruction manual and labels provided with the icemaker. The schedule below is a guideline. More frequent maintenance, however, may be required depending on water quality, the icemaker's environment, and local sanitation regulations.

Consult with your local distributor about inspection and maintenance service. To obtain the name and phone number of your local distributor, visit [www.hoshizaki.com](http://www.hoshizaki.com) or call Hoshizaki Technical Support at 1-800-233-1940 in the USA.

### ▲ WARNING

1. Only qualified service technicians should attempt to service or maintain this icemaker.
2. Disconnect power before performing maintenance.

Maintenance Schedule		
Frequency	Area	Task
Every 2 Weeks	Air Filter(s)	Inspect. Wash with warm water and neutral cleaner if dirty.
Monthly	External Water Filters	Check for proper pressure and change if necessary.
	Icemaker and Storage Bin Exterior	Wipe down with clean, soft cloth. Use a damp cloth containing a neutral cleaner to wipe off oil or dirt build up. Clean any chlorine staining (rust colored spots) using a non-abrasive cleaner like Zud or Bon Ami.
	Underside of Icemaker and Top Kits; Bin Door and Snout	Wipe down with clean cloth and warm water.
Every 6 Months	Icemaker and Storage Bin	Clean and sanitize per the cleaning and sanitizing instructions provided in this manual.
	Evaporator Condensate Drain Pan and Gear Motor Drain Pan	Wipe down with clean cloth and warm water. Slowly pour one cup of sanitizing solution (prepare as outlined in the sanitizing instructions in this manual) into the evaporator condensate drain pan. Be careful not to overflow the pan. This solution will flow down to the gear motor drain pan and out the drain line to sanitize these areas. Repeat with a cup of clean water to rinse.
	Icemaker and Storage Bin Drains	Check to make sure they are clear.
Yearly	Inlet Water Valve and Drain Valve	Close the icemaker water supply line shut-off valve and drain the water system. Clean the inlet water valve screen and clean and inspect the drain valve.
	Water Hoses	Inspect the water hoses and clean/replace if necessary.
	Condenser	Inspect. Clean if necessary by using a brush or vacuum cleaner.
	Icemaker	Inspect for oil spots, loose components, fasteners, and wires.
	Upper Bearing (extruding head)	Check for wear using .02" round stock or pin gauge. Replace both upper bearing and lower bearing if wear exceeds factory recommendations. See the Service Manual for details.

Maintenance Schedule (continued)		
Frequency	Area	Task
After 3 Years, then Yearly	Upper Bearing (extruding head); Lower Bearing and O-Ring (lower housing); Mechanical Seal; Evaporator Cylinder; Auger	Inspect. Replace both upper bearing and lower bearing if wear exceeds factory recommendations. Replace the mechanical seal if the seal's contact surfaces are worn, cracked, or scratched.

## C. Preparing the Icemaker for Long Storage

### CAUTION

When storing the icemaker for an extended time or in sub-freezing temperatures, follow the instructions below to prevent damage.

When the icemaker is not used for two or three days under normal conditions, it is sufficient to only move the power switch to the "OFF" position. When storing the icemaker for extended time or in sub-freezing temperatures, follow the instructions below.

#### 1. Remove the water from the icemaker water supply line:

- 1) Turn off the power supply, then remove the front panel.
- 2) Move the power switch to the "OFF" position.
- 3) Close the icemaker water supply line shut-off valve, then open the icemaker water supply line drain valve.
- 4) Allow the line to drain by gravity.
- 5) Attach a compressed air or carbon dioxide supply to the icemaker water supply line drain valve.
- 6) Move the control switch to the "ICE" position, then move the power switch to the "ON" position. Replace the front panel in its correct position, then turn on the power supply.
- 7) Blow the icemaker water line out using the compressed air or carbon dioxide supply.
- 8) Close the icemaker water supply line drain valve.

#### 2. Drain the evaporator:

- 1) Turn off the power supply, then remove the front panel.
- 2) Move the control switch to the "DRAIN" position, then replace the front panel in its correct position.
- 3) Turn on the power supply and allow the water system to drain for 5 minutes.
- 4) Turn off the power supply, then remove the front panel. Move the power switch to the "OFF" position.
- 5) Remove the evaporator drain line hose from the evaporator and attach a compressed air or carbon dioxide supply to the hose.

- 6) Turn on the power supply, then move the power switch to the "ON" position. Blow out the evaporator drain line using the compressed air or carbon dioxide supply until water stops coming out.
- 7) Move the power switch to the "OFF" position, then turn off the power supply. Reconnect the evaporator drain line hose.
- 8) Replace the front panel in its correct position.
- 9) Remove all ice from the storage bin. Clean the storage bin liner using a neutral cleaner. Rinse thoroughly after cleaning.

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